

10. A video camera according to claim 9, wherein said exposure amount adjustment means electrically adjusts at least one of the light transmission factor and the light transmission amount of said physical element.

11. A video camera according to claim 9, wherein said exposure amount adjustment means adjusts at least one of the light transmission factor and the light transmission amount of said physical element in accordance with incident light.

12. A video camera according to claim 9, wherein said exposure amount adjustment means comprises storage means for storing at least one relationship between at least one of the light transmission factor and the light transmission amount of said physical element and at least one of the light accumulation time and the sensitivity of said photoelectric conversion means.

#### REMARKS

In view of the above amendments and the following remarks, Applicant requests favorable reconsideration and allowance of the above-identified application.

Claims 1-12 remain pending in this application, with Claims 1 and 9 being the sole independent claims. By this Amendment, Applicant has amended Claims 1 and 9.

Claims 1-12 stand rejected under 35 U.S.C. § 102(b), as anticipated by U.S. Patent No. 5,047,847 (Toda, et al.). Applicant traverses this rejection.

As recited in independent Claim 1, Applicant's invention is directed to a camera having a physical element, photoelectric conversion means, memory means and control means. The physical element changes its light transmission factor. The photoelectric conversion

means receives an optical image transmitted through the physical element and converts the optical image into an electrical image signal. The memory means stores correcting information for correcting a change in an optical characteristic of the physical element. The control means processes the electrical image signal in accordance with the correcting information read out from the memory means which corresponds to the light transmission factor throughout the physical element. The electrical image signal is processed in order to correct the change in the optical characteristic of the physical element and to correct the controlling drive of the physical element according to the processed electrical image signal.

Independent Claim 9 is also directed to a camera and recites features similar to independent Claim 1. Instead of control means, however, independent Claim 9 recites correcting means for processing the electrical image signal output from the photoelectric conversion means in accordance with the correcting information read out from the memory means which corresponds to the light transmission factor throughout the physical element.

The Toda, et al. patent is directed to an optical system in which the refractive index of liquid crystals are controlled. In Figure 45 of that patent, correction processing using correction information stored in a memory is performed on an image signal output from A/D converter 415 by a multiplier 441. This processed image signal is then subjected to matrix processing and color encoding processing. However, the signal resulting from the processing is supplied by color encoder 448 to a *color monitor* (column 31, lines 20-24). The signal is not supplied to LC iris drive circuit 439. In other words, the Toda, et al. patent does not describe controlling the drive of a physical element, which can change its light transmission factor, in accordance with the output of the multiplexer 441 or the color encoder 448 (i.e., the processed image signal).

Accordingly, Applicant submits that the Toda, et al. patent fails to describe or suggest at least the features of converting an optical image into an electrical image signal and processing the electrical image signal output in accordance with correcting information read out from memory means corresponding to the light transmission factor throughout the physical element, to correct the change in the optical characteristic of the physical element, as recited in independent Claims 1 and 9.

For the foregoing reasons, Applicant submits that the independent claims are allowable over the applied patent, and requests withdrawal of the rejection under 35 U.S.C. § 102(b).

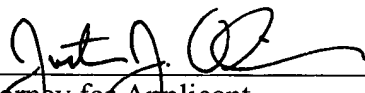
The remaining claims in the present application are dependent claims which depend from the independent claims discussed above, and thus are patentable over the applied patent for reasons noted above with respect to those independent claims. In addition, each recites features of the invention still further distinguishing it from the applied patent. Applicant requests independent and favorable consideration thereof.

Applicant requests that the present Amendment be entered under 37 CFR § 1.116. Applicant submits that the present changes merely are minor, and will reduce the number of issues for consideration. Applicant believes the present Amendment was necessitated by the outstanding Official Action, and submits that the present amendments were not previously made because Applicant believed the prior claims were allowable.

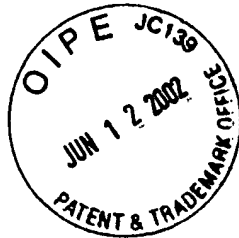
Applicant submits that all outstanding matters in this application have been attended to and that the application is in condition for allowance. Accordingly, Applicant requests a Notice of Allowance.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
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**VERSIONS WITH MARKINGS TO SHOW  
CHANGES MADE TO THE CLAIMS**

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1. (Twice Amended) A camera comprising:

a physical element that can change light transmission factor throughout said physical element;

photoelectric conversion means for receiving an optical image transmitted through said physical element at a position of an imaging plane, and for converting the optical image into an electrical image signal;

memory means for storing correcting information for correcting a change in an optical characteristic of said physical element with respect to a change of the light transmission factor throughout said physical element; and

control means for (i) performing processing of [on] the electrical image signal output from said photoelectric conversion means in accordance with the correcting information read out from said memory means corresponding to the light transmission factor throughout said physical element, to correct [correction of] the change in the optical characteristic of the physical element [in accordance with the correcting information read out from said memory means corresponding to the light transmission factor throughout said physical element], and (ii) controlling drive of said physical element according to the processed [corrected] electrical image signal.

9. (Amended) A camera comprising:

a physical element that can change a light transmission factor throughout said physical element;

photoelectric conversion means for receiving an optical image transmitted through said physical element at a position of an imaging plane, for converting the optical image into an electrical image signal, and capable of adjusting at least one of a light accumulation time and a sensitivity;

memory means for storing correcting information for correcting a change in an optical characteristic of said physical element with respect to a change of the light transmission factor throughout said physical element;

correcting means for performing processing of [on] the electrical image signal output from said photoelectric conversion means in accordance with the correcting information read out from said memory means corresponding to the light transmission factor throughout said physical element, to correct [correction of] the change in the optical characteristic of the physical element [in accordance with the correcting information read out from said memory means corresponding to the light transmission factor throughout said physical element]; and

exposure amount adjustment means for controlling an exposure amount by a combination of adjusting at least one of the light transmission factor and the light transmission amount of said physical element according to the electrical image signal

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processed [corrected] by said correcting means, and adjusting at least one of the light accumulation time and the sensitivity of said photoelectric conversion means.

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